

### Abstract of the Invention

A power factor correction circuit structure is described. The power factor correction circuit comprises a series connection of a first winding, a diode, an inductor and a first capacitor. The polarity of the first winding is opposite to that of the primary winding. A second capacitor is connected to the primary winding to control the primary winding and build a voltage across the first capacitor. This voltage is transferred to the first winding through the transformer to boost the first capacitor voltage and improve the power factor.

10